

09931372_CLSTITLES

Titles of Most Frequently Occurring Classifications of Patents Returned
From A Search of 09931372 on October 30, 2002

17 209/273 (4 OR, 13 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/233 SIFTING
209/268 .With liquid treatment
209/273 ..Stationary sifters

10 210/415 (2 OR, 8 XR)
Class 210 : LIQUID PURIFICATION OR SEPARATION
210/348 FILTER
210/407 .With residue removing means or agitation of
liquid
210/413 ..Fixed filter medium and movable stirrer or
cleaner
210/415 ...Nontranslatory rotary

7 209/17 (4 OR, 3 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/12.1 PLURAL, DIVERSE SEPARATING OPERATIONS
209/17 .Aqueous suspension and sifting

7 209/306 (0 OR, 7 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/233 SIFTING
209/274 .Concave and convex sifters
209/281 ..Stationary
209/305 ...Stationary
209/306With agitators

6 241/189.1 (1 OR, 5 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION

241/189.1 .Rotary striking member with circumferential o
r
tangential flow

6 241/73 (5 OR, 1 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION

241/68 .With separation or classification of material

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- 241/69 ..Comminuted material discharge permitting screen
- 241/73 ...Arcuate screen concentric with rotary comminuting member
- 6 241/74 (5 OR, 1 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
- 241/68 .With separation or classification of material
- 241/69 ..Comminuted material discharge permitting screen
- 241/74 ...Annular screen above or surrounding comminuting zone
- 5 34/58 (2 OR, 3 XR)
Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS
- 34/523 APPARATUS
- 34/58 .With apparatus using centrifugal force
- 5 34/59 (3 OR, 2 XR)
Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS
- 34/523 APPARATUS
- 34/58 .With apparatus using centrifugal force
- 34/59 ..Rotary scattering member
- 5 209/270 (3 OR, 2 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
- 209/233 SIFTING
- 209/268 .With liquid treatment
- 209/269 ..Reciprocating sifters
- 209/270 ...Drum
- 5 210/456 (1 OR, 4 XR)
Class 210 : LIQUID PURIFICATION OR SEPARATION
- 210/348 FILTER
- 210/456 .Prefilt flow distributor or diverter
- 4 34/147 (0 OR, 4 XR)
Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS
- 34/523 APPARATUS
- 34/147 .Spiral treated material path type
- 4 34/166 (0 OR, 4 XR)

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Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS

34/165 .Gravity flow type

34/166 ..Trough or tube, with axially rotary conveyor
or agitator

4 34/173 (0 OR, 4 XR)

Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS

34/165 .Gravity flow type

34/168 ..With gas or vapor flow for contact with
treated material

34/171 ...Shelf-to-shelf or zigzag treated material
flow

34/173Rotary stirrer or shelf

4 34/182 (1 OR, 3 XR)

Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS

34/179 .Stationary receptacle or tube with agitator o

r

conveyor

34/181 ..With gas or vapor flow for contact with
treated material

34/182 ...Axial treated material feed type

4 34/183 (0 OR, 4 XR)

Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS

34/179 .Stationary receptacle or tube with agitator o

r

conveyor

34/183 ..Axial treated material feed type

4 162/55 (1 OR, 3 XR)

Class 162 : PAPER MAKING AND FIBER LIBERATION

162/1 PROCESSES OF CHEMICAL LIBERATION, RECOVERY OR
PURIFICATION OF NATURAL CELLULOSE OR FIBRO

US MATERIAL

162/55 .With classifying, separating or screening of
pulp (solids from solids)

4 209/250 (0 OR, 4 XR)

Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

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209/233 SIFTING
 209/243 .Feeding
 209/247 ..Conveyors
 209/250 ...Fluid

4 210/232 (2 OR, 2 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/232 WITH REPAIR OR ASSEMBLING MEANS

4 210/414 (0 OR, 4 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/348 FILTER
 210/407 .With residue removing means or agitation of
 liquid
 210/413 ..Fixed filter medium and movable stirrer or
 cleaner
 210/414 ...With plural outlets from filter casing

4 280/741 (4 OR, 0 XR)
 Class 280 : LAND VEHICLES
 280/29 WHEELED
 280/727 .Attachment
 280/728.1 ..Inflatable passenger restraint or confinemen
 t
 (e.g., air bag) or attachment
 280/741 ...Inflation fluid source

3 55/457 (0 OR, 3 XR)
 Class 055 : GAS SEPARATION
 55/434 DEFLECTOR
 55/447 .Fixed gas whirler or rotator means
 55/456 ..Helical vane or baffle within flow conduit
 55/457 ...Between gas flow path wall and central core

3 209/240 (2 OR, 1 XR)
 Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
 209/233 SIFTING
 209/240 .Feeding and discharging

3 209/380 (0 OR, 3 XR)
 Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
 209/233 SIFTING
 209/363 .Elements
 209/379 ..Clearers

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209/380

...Fluid

- 3 210/388 (0 OR, 3 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/348 FILTER
 210/359 .Movable medium
 210/388 ..Vibrating or longitudinally reciprocating
- 3 210/450 (0 OR, 3 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/348 FILTER
 210/435 .Within flow line or flow line connected close casing
 210/450 ..Gasket within casing or spaced removable end members
- 3 210/454 (0 OR, 3 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/348 FILTER
 210/435 ..Within flow line or flow line connected close casing
 210/454 ..Filter element attached to closure
- 3 241/172 (0 OR, 3 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/170 .Loose grinding body comminutor (e.g., ball or rod mills)
 241/172 ..With independent means moving or guiding the material and/or grinding bodies in receptacle
- 3 241/46.17 (1 OR, 2 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/38 .Including means applying fluid to material
 241/46.01 ..Liquid submerged comminuting zone
 241/46.17 ...By rotating impeller-type agitating means
- 3 241/89.2 (0 OR, 3 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/83 .Comminuting surface provided with openings to permit discharge of material
 241/84 ..Cooperates with moving comminuting surface or member
 241/86 ...Cooperates with rotary comminuting member

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241/89.2

....Removable or interchangeable screen or
screen portion

2 34/168 (2 OR, 0 XR)
Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS
34/165 .Gravity flow type
34/168 ..With gas or vapor flow for contact with
treated material

2 34/175 (0 OR, 2 XR)
Class 034 : DRYING AND GAS OR VAPOR CONTACT WITH SOLIDS

34/523 APPARATUS
34/165 .Gravity flow type
34/175 ..With venting means or wall

2 55/337 (0 OR, 2 XR)
Class 055 : GAS SEPARATION
55/315 PLURAL SERIAL BASICALLY DIVERSE SEPARATING
MEDIA

55/318 .Plural stages in unitary casing
55/320 ..Deflector and fibrous, filamentary,
particulate solids, or cohesive sheet fil

ter type

55/332 ...Cohesive sheet-like filter
55/337Cyclone or centrifugal whirl type deflecto

r

2 62/470 (2 OR, 0 XR)
Class 062 : REFRIGERATION
62/467 REFRIGERATION PRODUCER
62/468 .With lubricant handling means
62/470 ..Lubricant separator

2 62/84 (0 OR, 2 XR)
Class 062 : REFRIGERATION
62/56 PROCESSES
62/84 .Lubricant handling

2 96/189 (1 OR, 1 XR)
Class 096 : GAS SEPARATION: APPARATUS
96/155 DEGASIFYING MEANS FOR LIQUID
96/188 .Including means to remove mist entrained in
gas
96/189 ..Baffle, filter, or screen

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2 102/531 (0 OR, 2 XR)
Class 102 : AMMUNITION AND EXPLOSIVES
102/530 JACKETED OR CARTRIDGE GAS GENERATOR
102/531 .For gas-powered tools or means

2 175/66 (0 OR, 2 XR)
Class 175 : BORING OR PENETRATING THE EARTH
175/57 PROCESSES
175/65 .Boring with specific fluid
175/66 ..Treating spent or used fluid above ground

2 209/269 (0 OR, 2 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/233 SIFTING
209/268 .With liquid treatment
209/269 ..Reciprocating sifters

2 209/281 (0 OR, 2 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/233 SIFTING
209/274 .Concave and convex sifters
209/281 ..Stationary

2 209/3 (0 OR, 2 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/3 PRECEDENT PREPARATION OF ITEMS OR MATERIALS TO
FACILITATE SEPARATION

2 209/301 (1 OR, 1 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/233 SIFTING
209/274 .Concave and convex sifters
209/281 ..Stationary
209/301 ...Reciprocating and rotating

2 209/360 (0 OR, 2 XR)
Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS

209/233 SIFTING
209/307 .Endless belt sifters
209/359 ..Vertical
209/360 ...Reciprocating

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- 2 209/44 (1 OR, 1 XR)
 Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
- 209/12.1 PLURAL, DIVERSE SEPARATING OPERATIONS
 209/44 .Sifting and stratifying
- 2 209/498 (0 OR, 2 XR)
 Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
- 209/422 STRATIFIERS
 209/484 .Elements
 209/497 ..Feeding
 209/498 ...Distributing
- 2 209/714 (1 OR, 1 XR)
 Class 209 : CLASSIFYING, SEPARATING, AND ASSORTING SOLIDS
- 209/132 FLUID SUSPENSION
 209/133 .Gaseous
 209/142 ..Grading deposition
 209/143 ...With deflection
 209/713Mechanically induced swirling
 209/714Eduction rotor
- 2 210/304 (0 OR, 2 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
- 210/294 DIVERSE DISTINCT SEPARATORS
 210/295 .Including a filter
 210/299 ..Including constituent trapping feature
 210/304 ...Tangential flow, spiral or convolute baffle
- 2 210/380.1 (0 OR, 2 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
- 210/348 FILTER
 210/359 .Movable medium
 210/360.1 ..Centrifugal extractor
 210/380.1 ...Rotating element construction
- 2 210/409 (0 OR, 2 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
- 210/348 FILTER
 210/407 .With residue removing means or agitation of
 liquid
 210/409 ..Fluid cleaning
- 2 210/413 (1 OR, 1 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION

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- 210/348 FILTER
 210/407 .With residue removing means or agitation of liquid
 210/413 ..Fixed filter medium and movable stirrer or cleaner
- 2 210/433.1 (0 OR, 2 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/348 FILTER
 210/433.1 .Divided filtered, and unfiltered liquid passages
- 2 210/497.01 (0 OR, 2 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/348 FILTER
 210/483 .Supported, shaped or superimposed formed mediums
 210/497.01 ..Cylindrical, conical, or trough shape
- 2 210/512.1 (0 OR, 2 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/512.1 TANGENTIAL FLOW OR CENTRIFUGAL FLUID ACTION
- 2 210/512.3 (0 OR, 2 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/512.1 TANGENTIAL FLOW OR CENTRIFUGAL FLUID ACTION
 210/512.3 .With movable means affecting flow
- 2 210/787 (1 OR, 1 XR)
 Class 210 : LIQUID PURIFICATION OR SEPARATION
 210/600 PROCESSES
 210/767 .Separating
 210/787 ..Cyclonic, or centrifugal (e.g., whirling or helical motion or by vortex, etc.)
- 2 241/188.1 (0 OR, 2 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/188.1 .Rotary striking member with axial or radial flow of material
- 2 241/19 (0 OR, 2 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/15 .With application of fluid or lubricant material
 241/18 ..Gas or vapor
 241/19 ...To classify or separate material

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- 2 241/191 (0 OR, 2 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/191 .Rotary striking member, rotor structure
- 2 241/236 (0 OR, 2 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/198.1 .Cooperating comminuting surfaces (e.g., jaw crusher)
 241/220 ..Rotary surface (or surfaces)
 241/221 ...Circumferential or tangential flow of material (e.g., roll mills or roll and concave mills)
 241/227Both cooperating surfaces rotate (e.g., roll mills)
 241/235Cooperating non-smooth surface characteristic
 241/236Intermeshing
- 2 241/242 (2 OR, 0 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/198.1 .Cooperating comminuting surfaces (e.g., jaw crusher)
 241/220 ..Rotary surface (or surfaces)
 241/221 ...Circumferential or tangential flow of material (e.g., roll mills or roll and concave mills)
 241/242Cooperating non-smooth surface characteristics
- 2 241/259.1 (1 OR, 1 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/198.1 .Cooperating comminuting surfaces (e.g., jaw crusher)
 241/220 ..Rotary surface (or surfaces)
 241/244 ...Axial or radial flow of material (e.g., disc mill, or cone and shell mill)
 241/259.1With means vary space between surfaces
- 2 241/294 (0 OR, 2 XR)
 Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
 241/291 .Comminuting elements

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241/293 ..Cylindrical or frusto-conical (i.e.,
peripheral comminuting face)
241/294 ...Sectional or separable surface element

2 241/30 (1 OR, 1 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
241/30 .Miscellaneous

2 241/46.02 (2 OR, 0 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
241/38 .Including means applying fluid to material
241/46.01 ..Liquid submerged comminuting zone
241/46.02 ...With material feed means

2 241/7 (1 OR, 1 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
241/6 .Cereal and other seeds or seed parts
241/7 ..With operation to detach or loosen adhering
hull portion

2 241/81 (0 OR, 2 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
241/68 .With separation or classification of material
241/81 ..Separator in feed to comminuting zone

2 241/86.1 (0 OR, 2 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
241/83 .Comminuting surface provided with openings to
permit discharge of material
241/84 ..Cooperates with moving comminuting surface o
r
member
241/86 ...Cooperates with rotary comminuting member
241/86.1Material thrown against perforated surface
by centrifugal force

2 241/88 (0 OR, 2 XR)
Class 241 : SOLID MATERIAL COMMINUTION OR DISINTEGRATION
241/83 .Comminuting surface provided with openings to
permit discharge of material
241/84 ..Cooperates with moving comminuting surface o

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r

member

241/86 ...Cooperates with rotary comminuting member
241/88Provided with special comminuting surfaces
or characteristics

2 280/736 (0 OR, 2 XR)

Class 280 : LAND VEHICLES

280/29 WHEELED

280/727 .Attachment

280/728.1 ..Inflatable passenger restraint or confinemen

t

(e.g., air bag) or attachment

280/736 ...With source of inflation fluid and flow
control means thereof

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Most Frequently Occurring Classifications of Patents Returned
From A Search of 09931372 on October 30, 2002

Original Classifications

5	241/73
5	241/74
4	209/17
4	209/273
4	280/741
3	34/59
3	209/270
2	34/168
2	34/58
2	62/470
2	209/240
2	210/232
2	210/415
2	241/242
2	241/46.02

Cross-Reference Classifications

13	209/273
8	210/415
7	209/306
5	241/189.1
4	34/147
4	34/166
4	34/173
4	34/183
4	209/250
4	210/414
4	210/456
3	34/182
3	34/58
3	55/457
3	162/55
3	209/17
3	209/380
3	210/388
3	210/450
3	210/454
3	241/172
3	241/89.2
2	34/175
2	34/59
2	55/337
2	62/84

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2 102/531
2 175/66
2 209/269
2 209/270
2 209/281
2 209/3
2 209/360
2 209/498
2 210/232
2 210/304
2 210/380.1
2 210/409
2 210/433.1
2 210/497.01
2 210/512.1
2 210/512.3
2 241/188.1
2 241/19
2 241/191
2 241/236
2 241/294
2 241/46.17
2 241/81
2 241/86.1
2 241/88
2 280/736

Combined Classifications

17 209/273
10 210/415
7 209/17
7 209/306
6 241/189.1
6 241/73
6 241/74
5 34/58
5 34/59
5 209/270
5 210/456
4 34/147
4 34/166
4 34/173
4 34/182
4 34/183
4 162/55
4 209/250
4 210/232
4 210/414

4 280/741
3 55/457
3 209/240
3 209/380
3 210/388
3 210/450
3 210/454
3 241/172
3 241/46.17
3 241/89.2
2 34/168
2 34/175
2 55/337
2 62/470
2 62/84
2 96/189
2 102/531
2 175/66
2 209/269
2 209/281
2 209/3
2 209/301
2 209/360
2 209/44
2 209/498
2 209/714
2 210/304
2 210/380.1
2 210/409
2 210/413
2 210/433.1
2 210/497.01
2 210/512.1
2 210/512.3
2 210/787
2 241/188.1
2 241/19
2 241/191
2 241/236
2 241/242
2 241/259.1
2 241/294
2 241/30
2 241/46.02
2 241/7
2 241/81
2 241/86.1
2 241/88

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2 280/736

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PLUS Search Results
for S/N 09/931,372
Searched October 30, 2002

5503338
5938131
4320089
4462900
6039513
5265347
5611150
6138375
6237244
6438864
6467188
5570849
5301439
5925249
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5680811
5899338
5511731
5505388
4364756
4970004
5176826
5407565
5678767
6176443
4117984
5741340
4998678
5301812
5560553
4164467
4460393
4857175
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5231805
5176261
4899662

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5497702
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4476019
4565015
5638606
6438866
4076508
4367078
4597871
6123359
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5224734
5527067
5624134
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4436100
4458763
4900430
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5224603
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5307939
5316685
5358637
5458246
5497886
5601690
5651305
5655720
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5713526
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6325311
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